



PCT

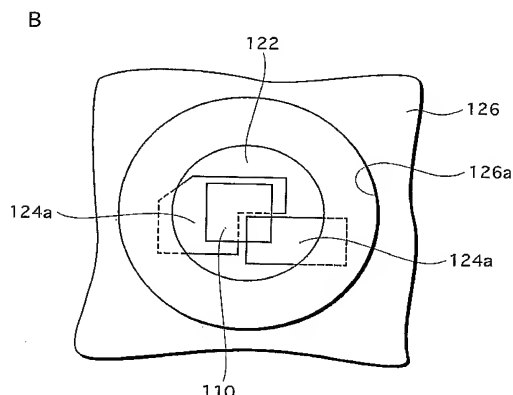
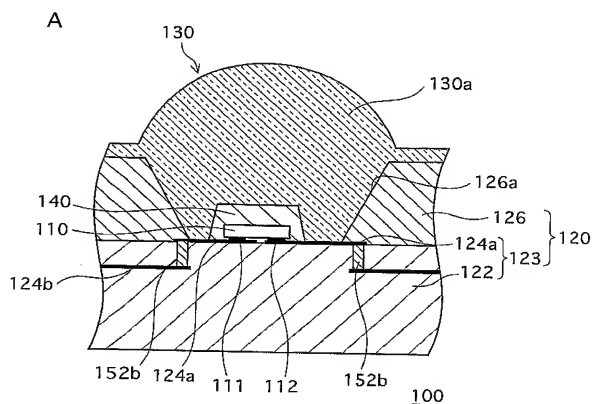
(10) International Publication Number
WO 2005/093862 A3

(43) International Publication Date
6 October 2005 (06.10.2005)

- | | |
|---|--|
| <p>(51) International Patent Classification:
 <i>H01L 33/00</i> (2006.01)</p> <p>(21) International Application Number:
 PCT/JP2005/005603</p> <p>(22) International Filing Date: 18 March 2005 (18.03.2005)</p> <p>(25) Filing Language: English</p> <p>(26) Publication Language: English</p> <p>(30) Priority Data:
 2004-093896 26 March 2004 (26.03.2004) JP
 2005-064801 9 March 2005 (09.03.2005) JP</p> <p>(71) Applicant (for all designated States except US): MAT-SUSHITA ELECTRIC INDUSTRIAL CO., LTD.
 [JP/JP]; 1006, Oaza Kadoma, Kadoma-shi, Osaka,
 5718501 (JP).</p> <p>(72) Inventors; and</p> <p>(75) Inventors/Applicants (for US only): NISHIMOTO,
 Keiji. NAGAI Hideo.</p> | <p>(74) Agents: NAKAJIMA, Shiro et al.; 6F, Yodogawa
 5-Bankan, 2-1, Toyosaki 3-chome, Kita-ku, Osaka-shi,
 Osaka 5310072 (JP).</p> <p>(81) Designated States (unless otherwise indicated, for every
 kind of national protection available): AE, AG, AL, AM,
 AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
 CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
 GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG,
 KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,
 MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH,
 PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ,
 TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
 ZM, ZW.</p> <p>(84) Designated States (unless otherwise indicated, for every
 kind of regional protection available): ARIPO (BW, GH,
 GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
 ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
 European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,</p> |
|---|--|

[Continued on next page]

(54) Title: LED MOUNTING MODULE, LED MODULE, MANUFACTURING METHOD OF LED MOUNTING MODULE, AND MANUFACTURING METHOD OF LED MODULE



(57) Abstract: The following explains an LED module that can achieve favorable light extraction efficiency without increasing a cost. An LED module (100) includes LED devices (110), an LED mounting module (120) on which the LED devices (110) are mounted, and a lens board (130) attached to a front surface of the LED mounting module (120). The LED mounting module (120) includes a printed wiring board (123) and a reflecting board (126). The printed wiring board (123) is an insulation board (122) on which a wiring pattern (124), used to mount the LED devices (110), is formed. The reflecting board (126) is made of a resin material, and has therein reflecting holes (126a) provided in correspondence with locations, on the printed wiring board (123), where the LED devices (110) are mounted. The reflecting board (126) and the printed wiring board (123) are directly adhered to each other at their surfaces that face each other.



FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:

27 April 2006